

4.5 CULTURAL RESOURCES

Cultural and historical resources situated along the Project route are discussed in this section. A review of previous cultural resources surveys conducted for the AT&T China-United States (U.S.) project Environmental Impact Report (EIR) and the MFS Globenet project EIR, both of which cover the onshore portion of the Project site, was completed. This research identified previously surveyed tracts and recorded sites within or near the Project, characteristics of previously recorded properties, dates of previous surveys, excavation programs, and relevant technical reports.

4.5.1 Environmental Setting

The marine waters along coastal California have a potential to contain intact prehistoric sites as well as shipwrecks and other historic resources, although this potential varies greatly from place to place (SAIC 2000). Onshore, cultural resources exist from several thousand years ago to the more recent historic era.

Onshore

Prehistoric Setting

The onshore segment of the Project is located within the territory historically occupied by the Obispeño Chumash, the northernmost of the Chumash-speaking peoples of California. Archaeological evidence has revealed that the ancestors of the Obispeño settled in San Luis Obispo County over 9,500 years ago. The Obispeño area from San Simeon Creek to Avila Bay contains at least 2,500 archaeological sites that span many years of occupation by the Chumash and their ancestors. Following an annual cycle of hunting, fishing, fowling and harvesting, the Chumash peoples adapted to changing environmental and social conditions and grew into a large, complex society that persists today.

At the time of Spanish contact, the area surrounding the proposed Project onshore corridor was occupied by speakers of the Obispeño dialect of the Chumash language. The Chumash were a group of hunter-gatherer-fishers who attained an extraordinary level of social complexity given their means of subsistence. The Obispeño Chumash occupied the northern limits of the Chumash sphere, beginning near the Nipomo area and extending northward as far as San Simeon and beyond.

In the world of the Chumash, the long years of prehistory have been divided into several periods that have been sub-divided into chronologically-successive phases (King 1981).

1 The earliest aboriginal settlement in the area historically occupied by the Chumash is a
2 poorly known period between 12,000 years ago and 9,500 years ago. A Palaeo-period
3 fluted point from this era was found in the coastal area east of Point Conception.

4 Much of the long history of the Chumash and their ancestors has been based on
5 general patterns of social, technological and subsistence changes observable in the
6 archaeological record and is separated into three major periods: Early, Middle and
7 Late, (King 1990).

8 The Early Period (9,000 B.C. to 1,000 B.C.) is the first period in California with sites that
9 represent remains of permanent settlements with associated cemeteries. The earliest
10 site in San Luis Obispo County, CA-SLO-2, is found at Diablo Canyon, with radiocarbon
11 dates of about 8,900 to 9,300 years ago (Greenwood 1972). The important Lodge Hill
12 site in Cambria also has a substantial Early Period component which has been radio-
13 carbon dated to 8,000 years ago. It shows extensive use of local raw materials and
14 coastal marine food resources.

15 While a number of sites along the San Luis Obispo County coast are known to exist
16 prior to 8,000 years ago, very few have been discovered between the years of 8,000
17 and 5,500. The rare occurrence of archaeological sites in this 2,500 year period may be
18 due to the Altithermal, a very dry warm period in California history when populations
19 may have decreased or been clustered near permanent water sources. After 5,500
20 years ago, many sites were again occupied. Coastal sites in this later part of the Early
21 Period are known from Diablo Canyon, the Morro Bay sand spit, Toro Creek, Cayucos,
22 Cambria, San Simeon Creek, and elsewhere.

23 Early Period sites often contain milling stones and manos, which indicate extensive use
24 of seed plants in addition to intensive harvesting of shellfish. A basic array of
25 rectangular shell bead ornaments also occurs throughout the Early Period. Village life
26 was well organized with formal cemeteries and specialized resource sites being used.

27 Artifacts and food remains recovered from these early contexts indicate that people
28 living along the coast fished with bone hooks, sometimes using boats or rafts, and
29 occasionally taking sea mammals and large fish. Deer and other bones, stone points
30 and knives indicate that hunting was important. Residential sites often contain milling
31 stones and manos used to process small seeds. During much of the Early Period,
32 society was organized as egalitarian, so that anyone could attain positions of power and
33 wealth. Political power was largely dependent upon the acquisition of wealth and ritual
34 power. During the later phases of the Early Period, Olivella barrel beads were the

1 dominant type of bead used throughout Chumash territory. Olivella barrels require
2 additional grinding of the base and often the spire to reduce the size of the bead, which
3 increases the manufacturing costs of this type of bead (King 1990). This increased cost
4 per bead is suggested to indicate that these beads were used in economic contexts.

5 The increasingly standardized size of the Olivella barrel beads and clam disc beads
6 throughout the Early Period also suggests both were used in changing and developing
7 economic exchange systems. Often early settlements were small hamlets defensively
8 situated on elevated landforms. Throughout the Early Period, while most villages
9 contained 30 to 60 people, some settlements increased in size to several hundred.

10 The end of the Early Period and beginning of the Middle Period occurs between 1,000
11 B.C. and 600 B.C. and is marked by changes in ornaments and other artifacts, which
12 indicate the development of hereditary control of political and economic power.
13 Cemeteries in this time period indicate a separation of “church and state,” between
14 chiefs and priests or religious leaders. Towards the end of the Early Period, milling
15 stones decreased in frequency as mortars and pestles became more common.
16 Subsistence patterns appear to shift from small seeds to larger nuts particularly the
17 acorn and islay as well as fruits. Storage of these foods also increased. Social and
18 marriage networks were established to regulate these food stores and to even out
19 fluctuations of the acorn harvest in different regions. Also during the Middle Period,
20 there was an increase in importance of fishing from boats with fish becoming a more
21 important food resource. Village locations during this period tended to be less
22 defensive in nature, as villages became integrated into larger political units to promote
23 inter-village and inter-regional trade.

24 The Early Period economic system employed clam disc/cylinder beads and Olivella
25 barrel beads. However, both types of beads became very rare in the Middle Period
26 indicating a major change in the utility of economic systems during this time period.
27 During the Middle Period, political control systems and not economic systems were
28 adequate to regulate the Chumash society. The most common beads were Olivella
29 saucers (discs) that were used in necklaces during political exchanges between village
30 chiefs and other high status members of the society. The villages during the Middle
31 Period grew larger in size and number. Toward the end of the Middle Period there was
32 a shift from the use of large to small projectile points with bows and arrows becoming
33 common throughout California after about A.D. 500 to 700.

1 The Middle Period of Chumash prehistory spans the centuries between 500 B.C. and
2 1,150 A.D. At this point in time, Chumash society shifted into a very organized state
3 with hereditary rights to political and religious power. Artifact types changed in the
4 Middle Period and shell ornaments became more diverse. An important economic
5 adaptation, the use of acorns, is indicated by the decline in milling stones and the
6 increased use of mortars and pestles. Population size increases and trade networks
7 become very well established in the Middle Period. Some cemeteries show evidence of
8 warfare.

9 The Late Period (1150 A.D. to 1790 A.D.) is marked by the differentiation of new bead
10 types indicating new economic subsystems were again necessary to regulate the
11 growing Chumash society. This later economic system switched to Olivella callus
12 beads (cup, lip, and cylinder beads) and produced more money and invested more
13 energy per bead in the economic system than the Early Period populations. During the
14 eight hundred years the Late Period economic system operated, shell beads became
15 larger using less grinding time, cheaper to produce, and became more numerous. This
16 healthy trend in economic systems is commonly known as inflation.

17 Large trade centers were established and there was a rapid growth in all aspects of
18 Chumash society. Many small sites were also established during this period as a
19 response to the growth of an economic system that supported more specialists and
20 intensively exploited many different resources. Ritual objects were seldom owned by
21 individuals but rather controlled by institutions. Chiefs and many other important
22 political and social positions were inherited along “royal” family lines. Social and
23 political organizations encompassed most of the Chumash nation from Malibu to the
24 northern edge of San Luis Obispo County.

25 Economic changes continued within the Chumash world. Bead jewelry indicates that
26 there were divisions in wealth between family lines. Money was invented and
27 extensively used as an indication of political as well as economic power. The long
28 process of localized adaptation evident throughout Chumash prehistory became even
29 more established. With the arrival of the Spanish, especially after 1769 A.D., rapid
30 changes altered Chumash political and economic achievements as well as reducing the
31 size of the population. By the end of the Mission era, the Chumash continued to live on
32 their ancestral lands; but their former cultural achievements were largely changed
33 forever.

By 1805, all native people in San Luis Obispo County and beyond had been baptized and their villages abandoned. In the course of only thirty years from the first Spanish expedition in 1769, the traditional way of life had forever been changed for the Chumash people. Once moved to the missions or returned to the various outposts, native people adopted a new way of life, using domestic plants and animals and working to support the Franciscan missions. Those surviving the Spanish period adapted to the ranchos of the Mexican and American periods and later integrated into modern society after the turn of the century.

During prehistory, the area surrounding the estuary and inlet of Morro Bay was rich in wild food resources. This abundance of resources is believed to be the reason for the high number and large size of sites per mile relative to neighboring locations, especially to the north and east inland. This high frequency of prehistoric sites makes the Morro Bay area extremely important in regards to interpreting prehistoric cultures. The likelihood of encountering large substantial prehistoric sites increases as one nears the bay and estuary. Conversely, most of the sites located in the nearby foothills, away from the resources of the bay, are small ephemeral sites, often used for special purpose activities.

Archaeological studies continue to contribute to our knowledge of past cultural patterns and add considerably to our store of information on ancient environments and climatic conditions. Information generated by the systematic surface surveys and subsurface testing of archaeological deposits contributes a significant element to the scientific history of California and to the history of San Luis Obispo County.

Archaeological sites are also an integral part of the modern day Native American community. Their history is contained in the sites, and most contemporary Chumash believe that cultural resources are best left in their natural state. When unavoidable adverse impacts are proposed, most strongly support the best sensitive scientific study that will benefit their culture and the general community. Today, many Chumash people are involved in protecting their native heritage and practicing traditional beliefs in the same territory as their ancestors have for over 9,000 years.

Historic Setting

The cultural heritage of San Luis Obispo County started several thousand years ago when the first Chumash settled along the streams and foothills that now lie within the community. The area's rich cultural heritage extends from the prehistoric era, when the Chumash were the sole inhabitants, to the historic period in the late 1700's when

Spanish and Mexican influences greatly changed the aboriginal way of life. With the establishment of Mission San Luis Obispo de Tolosa in 1772, as well as occasional European visits to the area prior to that time, the Native American culture of the area changed dramatically. Indigenous technologies were lost or replaced by western ones, and religion and belief systems became transformed and incorporated into the Spanish culture. Most devastating to the local Chumash population was the introduction of Old World diseases for which they had little natural tolerance (Heizer 1974). As a result, the Native American population in the area dropped dramatically between the end of the 18th and the end of the 19th century.

After the decline of the mission era in the 1830's, San Luis Obispo gradually grew into a thriving town. For a period of over sixty years, a large population of Chinese immigrants lived in a busy Chinatown. The arrival of the railroad accelerated the growth of the commercial and residential community that included many Americans from the mid-West and further east.

In the 1860's, the economy of San Luis Obispo County changed from a cattle market based on hides and beef to a mixed economy including dairy operations introduced by Swiss-Italian farmers. In the mid-20th century agricultural development continued to diversify with more grain production (Krieger 1988). The community of San Luis Obispo also changed in 1903 when the California Polytechnic State University opened.

The rich history of San Luis Obispo has begun to emerge through archaeological research in the past decades. Various cultural resource management projects have documented prehistoric and early historic Chumash settlements (Gibson 1986); mission era settlement; the growth of the community in the late 1800's; and local heritage themes including the mission era Chumash; Chinatown and the saloon era (Conway 1995, and 2001). Historians have studied the growth and development of San Luis Obispo (Angel 1883, Krieger 1988). In addition, local histories link the economic development of San Luis Obispo County and the importance of the Southern Pacific Railway in the expansion of the community and California (Nicholson 1980).

A portion of the land surrounding the Project corridor was first placed into private ownership in the early 1840s. This rancho was combined with Rancho Pecho y Island (to the south) in 1845 to form the Rancho Canada de los Osos y Pecho y Islay and was awarded to Captain John Wilson and James Scott (Miozzi 1973). Throughout these early historical periods the lands surrounding the Project area remained relatively untouched. The area was described as "useless sagebrush land" that was not even fit

for cattle grazing. Historic maps and aerial photographs of the area show that the area surrounding the Project corridor saw little development until the middle of the 20th century.

Offshore

Prehistoric Setting

During the late Wisconsin glaciation (30,000 to 17,000 years Before Present), sea levels were as much as 400 feet (ft) [122 meters (m)] lower than they are today, and the coastline along San Luis Obispo County would have been approximately 6 nautical miles (nm) (11 km) farther offshore than at present (Hunter 1999). Even as recently as 8,000 years ago, sea levels were as much as 50 to 65 ft (15 to 20 m) lower than at present (Bickel 1978).

Areas of the Outer Continental Shelf predicted to be sensitive for submerged prehistoric resources have been identified by the U.S. Minerals Management Service (MMS) (Pierson, Shiller and Slater 1987; Snethkamp et al. 1990). These areas correspond to the locations of sensitive landforms (paleoembayments, submerged channel systems, and island complexes) along the shoreline at various periods ranging from approximately 18,000 to 7,500 years ago. The submarine channel system that extends offshore Morro Bay is considered sensitive for such buried landforms (Snethkamp et al. 1990). However, the MMS cautioned that the site predictions had to be made with available data that were “very limited, generalized, and lacking in localized details” (Snethkamp et al. 1990). To date, however, no known occurrences of in-situ remains of prehistoric habitation sites have been reported offshore Morro Bay. The closest recorded underwater site is located at Avila Beach (Port San Luis) to the south of the Project area (Hudson 1976).

Historic Setting

Inventories of shipwrecks have been made from the Morro Bay south (Pierson and Shiller 1989, PS Associates 1897). General patterns of historic maritime exploration and use of the Pacific coast have been well documented by the MMS (Snethkamp et al. 1990). The maritime history of California, with an emphasis on Estero Bay, has been recently summarized (Hunter 1999).

Maritime peoples worldwide have developed some form of watercraft with which to traverse bodies of water and exploit marine resources otherwise unavailable to them.

1 Local peoples utilized such craft to exploit the offshore environment. The Chumash and
2 other coastal populations of central California may have been skilled fishers prior to
3 arriving in the area, and had subsistence strategies and techniques with which to exploit
4 coastal resources (Johnson 1999). Although the early Spanish explorer Vizcaino
5 describes the Tomol, a large sewn plank canoe in use south of Monterey in 1602, there
6 is no information to attribute its use north of the Santa Barbara Channel area. The
7 “Playeno” peoples of Estero Bay, whether Chumash and/or Salinan, particularly in the
8 Cayucos area, utilized some form of watercraft. At the request of Franciscan Friars
9 after the Spanish establishment of the Mission system, Tomols navigated around Point
10 Conception and up coast as far as San Luis Obispo Bay (Hudson and Blackburn 1979,
11 Cunningham 1980). Although such water craft may reasonably be assumed to have
12 navigated the waters in and offshore of Estero Bay, evidence of such vessels is unlikely
13 to be preserved in the offshore environment due to the fragile nature of the craft in
14 terms of construction methods and perishable materials used.

15 The overland expedition of Gaspar de Portola in 1769 provided the first certain account
16 of the topography of Estero Bay (Smith and Teggart 1990). This expedition resulted in
17 the founding of the Spanish Mission system in Upper California which stimulated trade
18 and interaction throughout California, but did little to increase maritime activity within
19 Estero Bay (Hunter 1999). Estero Bay was hunted as part of the sea otter trade but
20 was otherwise little used until the 1860s. By then, farms, dairies and ranches in the
21 Estero Bay region began maritime shipments to the growing markets of San Francisco,
22 Los Angeles, and San Diego (Hunter 1999). A makeshift wharf built by Franklin Riley
23 around 1864 (Gates and Bailey 1982, cited in Hunter 1999) was replaced in 1872 by a
24 good wharf at Morro Bay when he went into partnership with a Captain Williams, owner
25 of the coastal sailing vessel Alexina, to promote trade between San Francisco and
26 Morro Bay. Most shipping, however, continued to go through Cave Landing in San Luis
27 Obispo Bay to the south (Hunter 1999). Barge traffic through the area was stimulated in
28 the 1890s by excavation of a quarry on Morro Rock to produce construction materials
29 for the San Luis Harbor breakwater. At that time the entrance channel to the estuary
30 was on the north side of Morro Rock. Several locations inside Estero Point were
31 probably used by liquor smugglers in the 1920s (Hunter 1999). Standard Oil of
32 California opened an offshore mooring oil transfer facility known as the Estero Bay
33 Marine Terminal in 1929. Other historic maritime activities in Estero Bay included naval
34 training operations during World War II, fishing, and commercial abalone harvesting
35 (Hunter 1999).

Fishing as an important economic development, whether from shore or watercraft, must also be considered prominent in the maritime activities of Estero Bay. Reliance on fishery resources dates back to Native American habitation of the area. Some of the earliest shell middens in the Estero Bay area date 5,000 to 7,000 years Before Present (Jones 1992, cited in Hunter 1999). The Fisheries Commission Report for 1888 notes that 27 people were employed in the San Luis Obispo County fishing industry. Commercial fishing for both local use and export employed few people in Estero Bay, generally, and Morro Bay in particular, until the 1930s. After WWII a fleet was established when wartime improvements provided additional moorings that allowed north coast fishing vessels to move in (Gates and Bailey 1982, cited in Hunter 1999). By 1950, Morro Bay lands were officially recorded by the California Department of Fish and Game.

Shore whaling was practiced in Estero Bay although whalers preferred whaling stations at San Simeon (established in 1865) to the north and Port San Luis (established in 1869) to the south. In addition, commercial abalone harvesting originated with the immigrant Chinese in 1853 (Lundy 1997) and was reinstituted by Japanese American divers around 1900. During the 1930s fishermen entered the abalone harvesting business and Morro Bay was second only to Monterey. With the outbreak of WWII and the internment of Japanese American divers from Monterey, Morro Bay became the 'abalone capital of California' (Lundy 1997) until the closure of the fishery in the 1970s.

Project Region and Site Resources

The following summarizes the status of the existing cultural resources within the Project region and site. Potential impacts of the proposed actions on those resources are assessed, and mitigation measures to reduce or eliminate potentially significant effects are provided.

Onshore Cultural Resources. The greater Morro Bay and Los Osos areas have had numerous archaeological investigations. A concentration of prehistoric archaeological sites exists throughout the general area.

A project-specific archaeological records search was completed at the Central Coast Archaeological Information Center at the University of California Santa Barbara and revealed the presence of 52 recorded archaeological sites and 198 previous archaeological surveys within a 1 mile (1.6 km) radius of the landing site and along the conduit corridor (Appendix H). The archaeological records search covers two USGS

quadrangle maps: the Morro Bay South Quadrangle and the San Luis Obispo Quadrangle.

The background records search also reviewed inventories for the State Historic Property Data Files, the National Register of Historic Places, National Register of Determined Eligible Properties, California Historical Landmarks, California Points of Historic Interest, California OHP Archaeological Determinations of Eligibility and the Caltrans State and Local Bridge Surveys. This review did not reveal any property evaluations in these inventories.

The information obtained through the background records search is included in Appendix H. The results of the records search have been summarized in Table 4.5-1 and are discussed by the USGS quadrangle maps below.

Table 4.5-1. Cultural Resources within 0.25 Mile (0.40 km) of the Onshore Route

Map Quad	Site #	Potentially Significant	Report Reference
Morro Bay South	SLO-485	Yes	Singer 1992
Morro Bay South	SLO-486	Yes	Singer 1992
Morro Bay South	SLO-495	Yes	Singer 1992
Morro Bay South	SLO-786	Yes	Singer 1992 and 1995
Morro Bay South	SLO-1481H	Yes	Singer 1992, 1995
Morro Bay South	SLO-2014	Yes	Parker 2000
Morro Bay South	SLO-787	Yes	Peak and Associates 1991
Morro Bay South	SLO-798	Yes	Peak and Associates 1991
Morro Bay South	SLO-1695	Yes	Lewis and Lundel 1994
Morro Bay South	SLO-1815	Yes	Runnings 1996; Pacific Legacy 1998

Morro Bay South USGS Quadrangle. The cable landing at the Sandspit Beach parking lot marks the western boundary of the onshore study area. The archaeological records search shows that this part of the Project area has had a complete archaeological surface survey with negative results for the presence of cultural resources. That archaeological survey report, prepared by Pacific Legacy (1998), states that no cultural resources were located within the Sandspit Beach parking lot area. These findings are supported by earlier surveys conducted in this area (Singer 1992).

The area was not surveyed for this Project, due to the fact that Project activities will primarily be located within previously-disturbed areas and because the area is not believed to contain surface evidence of potentially significant cultural resources. Three prehistoric sites, SLO-485, SLO-486 and SLO-495, were recorded in the dunes at the base of the sandspit north of the Sandspit Beach parking lot area (Singer 1992). These sites will not be impacted by the proposed Project. Data derived from the Central Coast Information Center and presented in the Pacific Legacy (1998) report, state that CA-SLO-1815 is located within the Montaña de Oro State Park Boundary/Pecho Valley Road area. The site was recorded in 1996 and was found to contain a surface scattering of marine shells along with one groundstone tool fragment (Runnings 1996). The proposed Project is not expected impact this site.

Site SLO-786 is located in the dunes south of the Sandspit Beach parking lot area. The proposed Project should not impact this site. An historic site, SLO-1481H, was found east and north of the conduit route (Singer 1992 and 1995). The proposed Project is not expected to impact this site.

Sites SLO-2014 and SLO-787 are located on the north side of Hazard Canyon adjacent to Pecho Road and near the conduit route (Parker 2000, Peak and Associates 1991, Singer 1995). The proposed Project is not expected to impact these sites. Prehistoric site SLO-2014 was described as located on a raised landscape feature on the west side of Pecho Road (Parker 2000). The proposed Project is not expected to impact this site.

A small archaeological site, SLO-798, is located on or very close to the conduit route on the ridge at the north side of Hazard Canyon. This site is located near a proposed staging area at a eucalyptus grove on the ridge. Manhole MH 89 F will be accessed at this location. The site was recorded in 1977 as a scatter prehistoric marine shellfish food remains and scattered evidence of stone tool production (Reindehl 1977). The surface survey determined that site SLO-798 covered 59,395 ft² (5,518 m²) along the ridge.

Subsequent investigations were completed by Peak and Associates (1991) for the HAW-5 fiber optic cable project. Prior impacts to the archaeological site including trails, dirt roads and an excavation pit, were noted. The 1991 fieldwork reduced the site size to 25,555 ft² (2,375 m²). The archaeologists observed over 150 chert flakes and related debitage, several obsidian flakes and a chert core. They also found that the primary archaeological deposit was situated on the north side of the ridge (Peak and Associates 1991).

1 Site SLO-642 occurs in Clark Valley south of the conduit route. The proposed Project is
2 not expected to impact this site.

3 Site SLO-1695 is located north of the corridor on the ridge above Clark Valley in the
4 vicinity of Manhole MH 45 and MH 46. As presently mapped, site SLO-1695 appears to
5 be located outside the study area.

6 San Luis Obispo USGS Quadrangle. The onshore, eastern portion of the proposed
7 Project does not contain any previously recorded archaeological sites. A previous
8 archaeological surface survey of the conduit route in this area produced negative results
9 for cultural resources (Peak and Associates 1991).

11 *Offshore Cultural Resources*

12 Several marine geophysical survey data sets have been collected from within the study
13 corridor in support of fiber optic cable projects that have been analyzed for marine
14 cultural resources. They include TPC-5 and HAW-5 (Morro Group 1991); Southern
15 Cross (Morro Group, Inc. 1999, Hunter 1999); China-U.S. (SAIC 2000a and b, CSLC
16 2000a); Global-West (SAIC 2000c, CSLC 2000b); and Japan-U.S. (SAIC, 2000d, CSLC
17 2000c).

18 Although some previous seafloor surveys using ROV, side scan sonar, seismic
19 subbottom profiling, and magnetometer have not detected any anomalies likely to be
20 cultural resources (Morro Group 1991, CSLC 1994), side scan sonar seafloor mosaic
21 and magnetometer data for the WorldCom Fiber Optic Cable Project identified 19
22 contacts within a 0.3 and 0.6 mi- (0.5 and 1.0 km-) wide corridor that were characterized
23 as potentially sensitive cultural resources (Morro Group Inc. 1999). Additionally, smaller
24 objects of probable cultural origin, not believed to be of historical significance, were also
25 noted within this area (Hunter 1999).

26 Submerged prehistoric sites have not been documented along the central California
27 coast (Hunter 1999), although some potential for them exists (Snethkamp et al. 1990).
28 Future geotechnical studies utilizing continuous cores, high resolution sub-bottom
29 profilers and other techniques should provide a better understanding of the nature and
30 locations of relict landforms that were exposed and available for use by early prehistoric
31 groups (Hunter 1999).

32 MMS marine archaeological studies and databases (Pierson, et al. 1987, Gearhart et al.
33 1990, and Snethkamp et al. 1990) indicate that a small offshore area centered on the

north side of Morro Bay is considered sensitive for historic shipwrecks. The location of one wreck has been established approximately 2.3 mi (3.7 km) north of the Project area (Gearhart et al. 1990). The locations of the remaining four historically-significant shipwrecks (Challenge, Golden Gate, Lena and Otsego) are not known with any certainty (Pierson, et al. 1987). One more recent shipwreck, the Vienni Su (1945) has also been reported north of the survey area. Additional research conducted for the proposed Project indicates that three early 20th century shipwrecks—The Eclipse, a schooner; The Yellowtail, a motor vessel; and The New Sunset, an oil screw—none of which have been evaluated for importance as cultural resources - and one recent shipwreck, The Hi C, are reported possibly within or south of the Project area.

The marine archaeological analysis for the proposed Project includes areas that will be affected during both shore-end and marine activities. The site-specific data provided in Alcatel (2008), has been analyzed to determine the presence of potential cultural resources within areas that could be affected by installation, operation, and eventual abandonment of the proposed fiber optic cable. The landing site has been subjected to previous review, permitting and installation of four submarine cables at the same location. The proposed cable will be placed in proximity to the existing cables that land at the Montaña de Oro State Park conduit area.

Because the Project's marine archaeological analysis was based on limited data on the size or overall dimensions of a sonar contact, and its proximity to the proposed cable route, a conservative approach to assessing those cultural resources has been instituted. Although the region is considered sensitive for the occurrence of an inundated prehistoric site, no such sites have been identified in the Morro Bay area. For the purpose of this analysis, all contacts in excess of 33 ft (10 m) were identified as potential cultural resources. It is possible that smaller contacts may also be cultural in origin, but would not be considered culturally significant. The actual side scan sonar analog or digital records were not available for this analysis, but may serve to clarify the significance of these features as cultural resources and in so doing may reduce potential impacts of the proposed Project.

Table 4.5-2 lists the sonar contacts and Table 4.5-3 lists magnetometer anomalies that are not associated with previous cable installations or rock outcrops and could, therefore, be potential cultural resources. A complete listing of all side scan sonar and magnetometer targets is provided in Appendix H. Of the 39 sonar contacts recorded during the survey, the contacts listed in Table 4.5-2 may represent sensitive cultural resources, based on size of the contact and its aspect ratio (length vs. width vs. depth).

**Table 4.5-2. Potential Marine Cultural Resources
from Side Scan Sonar Targets within Project Corridor**

Easting Northing	Dimensions (Length, Width, and Height [when available]) (feet/m)	Water depth (feet/m)	Description	Approximate Distance from Cable Route (feet/m)
14749193.3E 3695671.4N	67.85x34.84/20.68x 10.62	2,963/903	Scattered debris with no measurable height above the seafloor; soft sandy silt seabed; greater than 33 ft (10 m)	410/125 N
14761268.6E 3696429.8N	46.65x20.83/14.22x 6.35	2,736/834	Unidentified; very soft very silty clay seabed; greater than 33 ft (10 m)	1,641/500 N
14761665.1E 3696588.1N	36.06x12.34/10.99x 3.76	2,707/825	Unidentified; very soft very silty clay seabed; greater than 33 ft (10 m)	2,001/610 N
14762013.3E 3696510.0N	8.07x3.35/2.46x1.02	2,684/818	Unidentified; very soft very silty clay seabed	1,642/495 N
14761971.5E 3696544.2N	11.45x10.60/3.49x3. 23	2,671/814	Unidentified; very soft very silty clay seabed	1,772/540 N
14764497.0E 3696540.2N	23.62x16.70/7.20x5. 09	2,451/747	Unidentified; very soft very silty clay seabed	853/260 N
14768294.9E 3696662.0N	4.69x2.66/1.43x0.81	2,228/679	Unidentified; very soft very silty clay seabed	509/155 N
14774218.9E 3696534.0N	11.65x2.99/3.55x0.9 1	1,896/578	Unidentified; very soft very silty clay seabed	541/165 S
14774119.4E 3696484.9N	8.92x7.51/2.72x2.29	1,896/578	Unidentified; very soft very silty clay seabed	591/180 S
14776875.5E 3697082.2N	46.89x10.76/14.29x 3.28	1,732/528	Unidentified; very soft very silty clay seabed	919/280 N
14780099.3E 3696840.2N	42.03x20.57/12.81x 6.27	1,644/501	Debris; fine sediment (silty clay); Size greater than 39 ft (12 m)	558/170 N
14783435.5E 3696850.2N	65.62x65.62x- 3.28/20.00x20.00x-3	1,506/459	Unidentified; fine sediment (silty clay)	591/180 N
14800363.1E 3696728.5N	35.86x15.91/10.93x 4.85	656/200	Unidentified; fine sediment (silty clay); greater than 33 ft (10 m)	886/270 S
14801417.6E 3696517.9N	17.15x12.92xnmh	600/183	Unidentified; fine sediment (silty clay); greater than 33 ft (10 m)	1,476/450 S
14801849.1E 3696665.3N	34.28x8.19xnmh	568/173	Unidentified; fine sediment (silty clay); greater than 33 ft (10 m)	541/165 S
14802034.4E 3696812.6N	17.73x12.73xnmh	555/169	Unidentified; fine sediment (silty clay); greater than 33 ft (10 m)	49/15 S

Table 4.5-2. (Continued)

Easting Northing	Dimensions (Length, Width, and Height [when available]) (feet/m)	Water depth (feet/m)	Description	Approximate Distance from Cable Route (feet/m)
14806677.0E 3696415.9N	43.99x21.78x0.54	318/97	Low mound; fine sediment (silty clay); greater than 33 ft (10 m)	1,345/410 S

Source: Adapted from Alcatel (2008) and other sources.

**Table 4.5-3. Potential Marine Cultural Resources
from Magnetometer Targets within Project Corridor**

Easting Northing	Sidescan Sonar	Water Depth (feet/m)	Description
14814403.4E 3694301.1N	None	56/17	Unknown; in area of silty clay seafloor
14814428.1E 3694349.1N	None	56/17	Unknown; in area of silty clay seafloor
14814536.4E 3694456.1N	None	53/16	Unknown; in area of silty clay seafloor
14808740.9E 3697465.1N	Unknown; could not locate on map	266/81	Unknown
14811068.1E 3697131.1N	None	210/64	Unknown; in area of subcropping rock - may be geological in origin
14812310.5E 3696855.8N	None	171/52	Unknown; in area of subcropping rock - may be geological in origin

Source: Adapted from Alcatel (2008)

Three of the magnetometer anomalies are located in water depths of 53 to 56 feet (16 to 17 m) and one in approximately 266 feet (81 m). No information was provided on the duration or the magnitude of the anomalies. The two anomalies that were identified in water depths of 171 and 208 ft (52 and 64 m), occurred in an area of subcropping rock and are, therefore, possibly geologic in origin.

The contacts identified as possibly culturally sensitive are within 49 to 2,001 ft (15 to 610 m) of the proposed route and within water depths ranging from the 318 to 2,963 feet (97 to 904 m). Of the contacts identified as culturally sensitive, 14 are listed in the marine geophysical survey as unidentified, two as an area of scattered debris, and one as a low sediment mound.

None of the contacts identified as potentially sensitive cultural resources, however, are located within the 330 ft (100 m) impact corridor centered on the proposed route and defined by the work boat four-point mooring anchor spread radius of approximately 330 ft (100 m) in water depths less than 100 ft (31 m), or within the estimated 20 feet- (6 m-) wide impact area centered on the proposed route in waters deeper than 100 ft (31 m).

4.5.2 Regulatory Setting

The regulatory setting for cultural resources includes several federal, state and county regulations. Some apply to both onshore and offshore areas, while others are specific to the resources within either the onshore or the offshore areas.

Regulatory Setting Overview

The following discussion summarizes the federal and state laws and regulations that apply to cultural resource protection for both the onshore and offshore portions of the proposed Project site.

The National Historic Preservation Act (NHPA) of 1966, as amended, and pursuant to its implementing regulations 36 CFR 800.

This act establishes a requirement for federal agencies to evaluate the potential effects of their actions on historic properties. This act is generally referred to as the “section 106” process. The criteria and procedures established by NHPA also are used by the state in identifying and evaluating cultural resources eligible for inclusion in the California Register of Historical Resources.

Secretary of the Interior’s Standards and Guidelines for Archaeology and Historic Preservation (Federal Register 48, No 190, 1983).

This rule specifies criteria by which the Division of Historical Resources will review reports of cultural resource activities on federally assisted, licensed or permitted projects; on projects on state owned or controlled property or state assisted, licensed, or permitted projects; and on local projects for which the Division has review authority.

CEQA Regulations

Generally, CEQA requires public agencies to seek to avoid damaging effects on an archaeological resource whenever feasible. In situ preservation of a site is more important than preserving the artifacts alone because the relationship of the artifacts to each other in the site provides valuable information that can be lost when the artifacts

are removed. Further, preserving the site keeps it available for more sophisticated research methods.

California Coastal Act of 1976

This act requires anyone who proposes any development in the coastal zone to secure a Coastal Development Permit from either the California Coastal Commission or local jurisdiction with a certified Local Coastal Program. Section 30244 of the act provides that “Where development would adversely impact archeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.”

Onshore Regulatory Setting

The Project area is restricted to lands controlled either by the State of California, the County of San Luis Obispo, or private landowners. The following additional laws and regulations pertain to the onshore portion of the Project site.

Local Coastal Program

The San Luis Obispo County Local Coastal Program contains policies for the protection of archaeological resources, prevention of vandalism, identification of archaeological sites, site surveys, protection of sites through mitigation, and protection of resources discovered during construction or other activities. Furthermore the California Coastal Act Section 30244 states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Montaña de Oro State Park General Plan

The Montaña de Oro State Park General Plan states that in the event that a new archaeological discovery is made at Montaña de Oro State Park, the incident shall immediately be reported to the appropriate staff person who will determine the validity and significance of the discovery and will recommend appropriate protective or stabilization action. Specific management programs shall be developed when significant cultural resources are threatened, endangered, or of special concern.

1 **Offshore Regulatory Setting**

2 A series of federal and state regulations apply to potential cultural resources located in
3 the offshore segment of the Project area.

4 *State Lands Commission Policy*

5 The Project area is restricted to lands controlled by the State of California and as such,
6 the regulatory setting is founded in the CEQA. Also, because of legislative changes that
7 took effect in February 1999, the California State Public Resources Codes, in particular
8 sections 5020.0, 5024.1, 15064.5, 21808.1, and 21083.2, regulate this Project.

9 National Park Service Abandoned Shipwreck Act of 1987 (43 USC 2101-2106)

10 The Congress finds that -

11 (a) States have the responsibility for management of a broad range of living and
12 nonliving resources in State waters and submerged lands; and

13 (b) Included in the range of resources are certain abandoned shipwrecks, which
14 have been deserted and to which the owner has relinquished ownership rights
15 with no retention.

16 The Abandoned Shipwreck Act (Act) directs the National Park Service to prepare the
17 guidelines being issued to assist the states and federal agencies in developing
18 legislation and regulations to carry out their responsibilities under the Act. In
19 accordance with the Act, the guidelines are intended to maximize the enhancement of
20 cultural resources; foster a partnership among sport divers, fishermen, archeologists,
21 sailors, and other interests to manage shipwreck resources of the states and the United
22 States; facilitate access and utilization by recreational interests; and recognize the
23 interests of individuals and groups engaged in shipwreck discovery and salvage.
24 Specific provisions of the Act's Guidelines include procedures for locating and
25 identifying shipwrecks, methods for determining which shipwrecks are historic, and
26 preservation and long-term management of historic shipwrecks.

27 Archaeological and Historic Preservation Act (AHPA) of 1974

28 The AHPA built upon the national policy, set out in the Historic Sites Act of 1935, "...to
29 provide for the preservation of historic American sites, buildings, objects, and antiquities
30 of national significance..." The AHPA expanded the policy by focusing attention on

significant resources and data, but does not require that they be shown to be of "national" significance. The connection between the 1935 statute and the AHPA is mentioned explicitly in the first section of the statute.

Archaeological Resources Protection Act (ARPA) of 1979, as amended

The ARPA was specifically designed to prevent looting and destruction of archeological resources. Like the Antiquities Act, ARPA has enforcement and permitting components. The enforcement provision provides for the imposition of both criminal and civil penalties against violators of the Act. ARPA's permitting component allows for the recovery of certain artifacts consistent with the standards and requirements of the National Park Service's Federal Archeology Program.

County Regulations

The County of San Luis Obispo's Land Use Ordinance includes regulations for identifying and protecting archaeologically sensitive areas and requirements for notifications in the event of discovery of archaeological resources or human remains.

4.5.3 Significance Criteria

Impacts to a cultural/historical resource are significant if they:

- Cause a substantial adverse change in the significance of an archaeological or historical resource as defined in CEQA Guidelines sec. 15064.5, such as:
 - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - Is associated with the lives of persons important in our past;
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - Has yielded, or may be likely to yield, information important in prehistory or history.
- Affect a resource listed in, or determined to be eligible for listing in the California Register of Historical Resources (Pub Res. Code 5024.1, Title 14 CCR, section 4800 et seq.) or a resource included in a local register of section 5020.1(k) of the Public Resources Code; or

- A resource listed in, or determined to be eligible for listing in the California Register of Historical Resources (Pub. Res. Code 5024.1, Title 14 CCR, section 4800 et seq.).

4.5.4 Impact Analysis and Mitigation

Impact Discussion

Onshore Impacts

Based on the results of the records search and with implementation of all recommended mitigation measures, no direct significant impacts are anticipated for onshore cultural resources. Certain areas of the Project corridor pass through landscapes known to contain abundant cultural resources (e.g. Los Osos). In such locations, the possibility exists for encountering new archaeological deposits. Exposing these resources through mechanical excavation techniques would result in direct impacts to the resource. This could also occur when activities are being conducted along the perceived perimeters of known cultural resources and outlying deposits are contacted. Recognition of these possibilities led, in part, to the development of the following mitigation measures that should reduce the likelihood of this type of impact occurring.

Construction Impacts to Paleontological Resources Less than Significant.

Paleontological resources, including fossils of marine mammals and sharks, are known to exist in sedimentary deposits in the vicinity of the Project site (Morro Group 2000). However, the proposed Project would involve only limited amounts of trenching at the Sandspit Beach parking lot, an area previously disturbed by construction of the parking lot and access road in 1991 by AT&T during the Hawaii to San Luis Obispo cable project (Morro Group 1991). Additionally, the proposed Project proposes to install a grounding bed at the existing AT&T San Luis Obispo Cable Facility. The grounding bed will consist of drilling a series of holes in a designated pattern, installing grounding rods within each hole and backfilling each hole. This will result in a minor disturbance to the subsurface and would not be expected to yield any valuable information regarding paleontological resources. Construction-related activities will result in a less than significant impact to paleontological resources (Class III).

Potentially Significant Impacts

Impact CR-1: Project Related Cultural Resource Impacts

Certain areas of the Project corridor pass through landscapes known to contain abundant cultural resources (e.g. Los Osos) (Potentially Significant, Class II).

In such locations, the possibility exists for encountering new archaeological deposits. Exposing these resources through mechanical excavation techniques would result in direct impacts to the resource. Limited amounts of trenching will occur within the Sandspit Beach parking lot which presents the possibility to discover cultural resources.

Mitigation Measure for CR-1: Project Related Cultural Resource Impacts (from 1991 County of San Luis Obispo Hawaii to San Luis Obispo Conditions of Approval)

MM CR-1a. Cultural Resource Monitoring Plan. Prior to issuance of construction permits, AT&T will prepare and submit a cultural resources monitoring plan to CSLC and the San Luis Obispo County Department of Planning and Building/Environmental Coordinator. The plan shall be prepared by a qualified archaeologist that is approved by the CSLC and the county. The plan shall address, but not be limited to, monitoring, physical monitoring boundaries (e.g., 100-feet (31 m) each side of a site), site security, protocol for notifying local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction.

MM CR-1b. Preconstruction Meeting. A pre-construction meeting shall be conducted by a qualified archaeologist to advise the construction crew of conditions to be aware of that may indicate the presence of a significant archaeological site.

MM CR-1c. Cultural Resource Monitoring. During trenching in the Sandspit Beach parking lot, cultural resource monitoring shall be conducted by a qualified archaeologist and Native American monitor familiar with the resource types potentially present in these locations. The qualified archaeologist shall conduct monitoring activities based on a cultural resources monitoring plan.

During work at the staging area and in the vicinity of Manhole MH 89 F, cultural resource monitoring will be conducted by a qualified archaeologist and Native American monitor familiar with the resource types potentially present in these locations. The qualified archaeologist shall conduct monitoring activities based on a cultural resources monitoring plan developed for the Project.

Prior to commencement of construction activities, the site boundaries will be marked with fencing, the present work areas will be examined for cultural remains, and any artifacts present within work areas will be mapped and collected.

MM CR-1d. Reporting of Found Cultural and/or Paleontological Resources. Any cultural and/or paleontological resources (historical or prehistoric site or object) discovered by AT&T, or any person working on AT&T's behalf, shall be immediately reported to the appropriate agency official. AT&T shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the appropriate agency official. An evaluation of the discovery would be made by the appropriate agency official to determine actions that will be taken to prevent the loss of significant cultural or scientific values.

Impact CR-2: Archeological Resources or Human Remains Discovery

The potential exists for archeological resources or human remains to be found at any time during the Project activities (Potentially Significant, Class II).

Mitigation Measure for CR-4: Archaeological Resources or Human Remains

MM CR-2. Archaeological Resources or Human Remains. If archaeological resources or human remains are discovered during construction, CSLC and the County shall be notified, and work shall be halted within 150 ft (46 m) of the find until it can be evaluated by a qualified professional archaeologist. If the find is determined to be significant, appropriate mitigation measures shall be formulated within 48 hours of discovery, and will be implemented. Human remains must be reported to the Coroner's office. If the human remains are Native American in origin, the Native American

Heritage Commission must be notified. A Most Likely Descendant will be appointed by the commission for reburial of the remains.

Impact CR-3: Exclude Activity from Sensitive Areas

Along areas of the Project corridor there are known cultural resources (Potentially Significant, Class II).

When activities are being conducted along the perceived perimeters of known cultural resources and outlying deposit, construction activities could result in damage to the resource.

Mitigation Measure for CR-3: Exclude Activity from Sensitive Areas

MM CR-3. Excluding Activity from Sensitive Areas. During construction, the following activities shall be excluded from designated sensitive areas: (1) unnecessary or expansive excavation; (2) staging equipment or machinery on undisturbed or exposed portions of the cultural resource; (3) failure to immediately contain and collect any chemical spills; (4) collection, removal or displacement of any artifacts, ecofacts or other cultural remains; (5) stockpiling of imported soils within the designated sensitive area; (6) removal of native soils outside a sensitive area.

Impact Discussion

Offshore Impacts

The waters along coastal California have the potential to contain intact prehistoric sites, shipwrecks, and other historic resources. Impacts are defined as those activities associated with the offshore segment of the proposed Project that will cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5 or cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5.

Accurate identification of cultural resources prior to cable installation is crucial in that those resources are non-renewable and even minor damage to an intact prehistoric site or vessel lying on or buried within the substrate will cause immediate degradation of the

physical integrity of the resource by exposing a portion of the previously-protected resource to aerobic or other chemical effects.

In general, the cable route for the proposed Project has been designed to avoid previously-recorded maritime resource locations (shipwrecks) identified by the CSLC and the MMS (Pierson, et al. 1987, Gearhart, et al. 1990). To date no intact inundated or buried prehistoric sites have been located offshore of Morro Bay. South of the Project area, at Avila Beach, one isolated artifact was identified in a water depth of less than 100 ft (31 m).

Less Than Significant Impacts

In shallow water, (less than 100 ft [31 m]) the cable would be laid on the surface for later retroburial by divers. Because this would allow divers to observe artifacts within the disturbance zone prior to burying the cable, this would minimize the possibility of damage to any previously undetected objects. These activities are, therefore, expected to result in less than significant impacts to cultural resources within these water depths (Class III).

Because AT&T has agreed to not discharge ballast inshore of 12 nm (22.2 km) of the shoreline, the effect of those discharges, which may contain organisms that increase biological predation of historic wood shipwrecks, is considered less than significant (Class III).

While there is a potential for significant effects to cultural resources to occur from oil spills, the institution of a spill response plan and having the appropriate spill containment and recovery equipment available (Mitigation Measure MARBIO-5b) reduces this effect to less than significant (Class III).

Potentially Significant Impacts

Impact CR-4: Damage to Unknown Cultural Resource or Shipwreck

A highly degraded or deteriorated cultural resource (shipwreck) may occur undetected in the Project area buried within unconsolidated sediments, which could be damaged or destroyed during the pre-lay grapnel run or during the cable burial process (Potentially Significant, Class II)

Mitigation Measure for CULT-4: Damage to Unknown Cultural Resource or Shipwreck

MM-CR-4a. Detailed Resources Assessment. Prior to the pre-lay grapnel run and cable installation, a qualified marine archaeologist shall complete an analysis of available side scan sonar and magnetometer data for the cable route between the shoreline and the 6,000 ft (1,830 m) water depth. The analysis shall identify and analyze all magnetic and side scan sonar anomalies that occur in a 0.6 mile (1.0 km) wide corridor centered on the proposed cable route. AT&T will submit the results of that report to the CSLC for approval prior to the pre-lay grapnel run and cable installation.

MM-CR-4b. Reroute Cable as Needed. Should a previously unknown shipwreck of potential cultural resource value be discovered within the proposed cable corridor as a result of the study required in CR-6a, the proposed cable route or installation procedures shall be modified to avoid the potentially significant cultural resource.

MM-MARBIO-5b: Spill Response and Recovery Plan. An oil spill response and recovery plan shall be prepared. When in California waters and as required by OSPR and OPA-90 regulations, sufficient onboard oil recovery equipment to respond to a specified oil spill shall be maintained. If required, contract arrangements with spill response organizations shall be established and maintained that can respond to an oil spill with the appropriate equipment and within the regulation-specified period.

Rationale for Mitigation

These standard measures are designed to identify, properly record, and evaluate the significance of cultural resources and to protect resources found during excavation from damage and destruction. The measures would reduce impacts to less than significant levels.

Table 4.5-4. Summary of Cultural Resources Impacts and Mitigation Measures

Impact	Mitigation Measures
CR-1: Construction related cultural resource impacts	CR-1a. Cultural resource monitoring plan. CR-1b. Preconstruction meeting. CR-1c. Cultural resource monitoring. CR-1d. Any cultural and/or paleontological resource discovered must be immediately reported to the appropriate agency official.
CR-2: Archaeological resources or human remains discovery	CR-2. If archaeological resources or human remains are discovered during construction, notify the Coroner and County Planning, and work shall be halted within 164 ft (50 meters) of the find until evaluated by a qualified archaeologist.
CR-3: Construction activities within areas of previously-recorded onshore cultural resources	CR-3. During construction certain activities shall be restricted from sensitive areas.
CR-4: Damage to previously unknown or unrecorded offshore cultural resource or shipwreck	CR-4a. Detailed resources assessment. CR-4b. Reroute cable as needed. Implement MM-MARBIO-5b: Spill Response and Recovery Plan.

4.5.5 Impacts of Alternatives

The CEQA Guidelines emphasize that a selection of reasonable alternatives and an adequate assessment of these alternatives be presented to allow for a comparative analysis for consideration by decision-makers. Two alternatives are discussed for this EIR: (1) No Project Alternative, and (2) Cable Re-route/Maximum Burial Alternative.

No Project Alternative

No cultural resource impacts would occur if the No Project Alternative is selected. This alternative would involve no disturbance of offshore sediments or resources and would result in no impact to onshore cultural resources.

Cable Re-route/Maximum Burial Alternative

Due to the additional disturbance associated with the longer offshore cable it is anticipated that the Maximum Burial Alternative construction-related impacts to marine cultural resource would be similar in nature to those generated by the proposed Project. Because, however, this alternative will affect an increased area of seafloor, the potential for impacting previously undetected cultural resources is increased. Should a resource be identified within that larger area, the impact could be significant (Class II). The

1 Maximum Burial Alternative would not affect additional onshore cultural resources
2 because there is no change in the anticipated area of potential effect for the terrestrial
3 portion of the proposed Project.

4 **4.5.6 Cumulative Projects Impact Analysis**

5 Adverse effects on archaeological resources from planned, under construction, and
6 completed projects in the area will be addressed through mitigation on the individual
7 project basis. As future applications for individual projects are reviewed, the precise
8 evaluation of impacts would be coordinated through the individual project-level
9 environmental review. Provided that the mitigation described above is implemented, the
10 proposed Project's contribution to cumulative impacts to cultural resources would not be
11 significant.

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